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CANADA'S DEFENCE

Information on

CANADA'S DEFENCE ACHIEVEMENTS AND ORGANIZATION

Issued under authority of
HON. BROOKE CLAXTON, M.P.
Minister of National Defence

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CANADA'S DEFENCE

New weapons forged in The Second Great War and revolutionary changes in the comparable strengths of many nations make the defence of Canada a matter of major national policy and of direct concern to every individual Canadian. The object of Canadian policy is to do all that we can to prevent the outbreak of another world war, or, failing that, to ensure that we and our potential allies are in a position to win it, and win it quickly, if and when it does start.

The following paper is intended to provide information about the wartime achievements of Canada and her defence needs and objectives, as well as to outline organizational changes that are underway. The first part is largely taken from a statement by the Honourable Brooke Claxton, Minister of National Defence, in presenting the Department's Estimates to the House of Commons on July 9, 1947.

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PART I

MINISTER'S STATEMENT ON THE ESTIMATES

On June 17, 1947, P.C. 2372 was adopted providing that the members of the armed forces shall cease to be on active service as at September 30, 1947. At that time the formal change from a war to a peace footing for the armed services will be related to the inauguration of a campaign to obtain recruits for the active and reserve forces. In the meantime, however, now that our wartime forces have in fact ended the work to which they had set their hands, it will, I believe, be the wish of honourable members that a brief summary of the facts and figures of their accomplishments should be set down in Hansard as a permanent record of a magnificent achievement.

Canada's war record, in reminding us of the nature of modern war, will inspire and strengthen us to work with other nations to create the conditions for enduring peace. Canada's part in two wars will lead us, until progress is made in ensuring peace through collective action, to establish our own forces on a post-war basis which will be related to the defence needs of the country as these may change from time to time. Our policy must be informed by wartime experience just as it is inspired by war-time achievement.

In the statement which follows, after reviewing the achievements in war, I propose to set out what I take to be the defence needs of Canada, to indicate some of the matters which must receive the most immediate attention and to describe long-term objectives with regard to the Department of National Defence and the armed forces.

The War

The war of liberation started on September 1, 1939. Germany's brutal attack on Poland was followed by the so-called "phoney war", when Germany was growing in strength to make the sweep through Denmark, Norway, the Netherlands, Belgium and France. From the fall of France in June 1940, until Russia was brought into the war a year later, Britain and the countries of the Commonwealth stood almost alone. The will to be free was for a time the main armour that stood against the evil thrust to make Germany supreme and everyone else slaves.

Canadian territory was not attacked but from the outset we recognized that this was a fight in which our vital interests were involved, and, by act of our own government on the all but unanimous support of our own Parliament, we entered the war on September 10, 1939. Our contribution mounted steadily.

The Royal Canadian Navy

At sea, our main job was to keep the bridge of ships open to Britain. The submarine menace was a major threat.

From the start our young and growing Navy carried its share of the work of escort, and by the later stages of the war, the R.C.N. was undertaking the major portion of the close escort of Canada-U.S.-Great Britain trade convoys to the United Kingdom. Our ships took an active part in the Aleutian Islands and Mediterranean campaigns and participated in the conquest of Japan. 10,000 officers and men in 109 ships of the Royal Canadian Navy took part in the European landings from D-day onward. At the start of the war our Navy had 1,769 full-time officers and men. Before its end, 100,000 men had passed through its ranks and we had a total of 780 ships.

The Army

The First Division left Canada in December 1939, and was joined by the Second Division in 1940. These two divisions were among the few bodies of trained troops ready to withstand a German assault on Britain; some of them at Dieppe paved the way for future landings. The first Canadian Infantry Division landed at Sicily in July 1943 and was followed soon by the Fifth Canadian Armoured Division and other units. These comprised the First Canadian Corps which fought up the whole long length of Italy until withdrawn to join the First Canadian Army in North-West Europe early in 1945.

The Third Canadian Infantry Division landed on D-Day, June 6, 1944, followed by the Second Canadian Infantry Division and the Fourth Canadian Armoured Division. In July 1944, the Second Canadian Corps and the First British Corps were grouped in the First Canadian Army, which carried a tough assignment on the left flank in the fighting in Normandy and up the channel ports through Holland, and Germany beyond the Rhine. Forming part of the Canadian Army at one time or another were all but two of the British divisions, as well as a number of American divisions, a Polish armoured division, and Belgian, Netherlands, and Czech brigades. The first Canadian Army was an effective international force and its components got on

well together under the leadership of our own General H. D. G. Crerar, C.H. Early in 1945 more than half a million men of half a dozen countries formed the Canadian Army which stretched over 250 miles of front and was at this time probably the largest single army formation on the western front. From the beaches, through Caen and Falaise up by the channel ports, over the Scheldt, the Maas and Rhine, the Canadians lived up to the reputation they had gained in the first Great War.

During the war our peacetime permanent force of 4,492 officers and men was multiplied more than a hundred and sixty times. Before the war was over 709,007 personnel had served in the Canadian Army, in addition to 21,618 members of the Canadian Women's Army Corps.

The R.C.A.F.

The British Commonwealth Air Training Plan from its start in December 1939 was a spectacular undertaking. In a short time we had nearly 200 training schools across Canada. By the time the plan was finished it had trained 42,110 young flyers from the United Kingdom (including 5,293 Royal Air Force and Fleet Air Arm pilots trained in Canada at R.A.F. schools prior to July 1942 when these schools became part of B.C.A.T.P.), 9,606 from Australia, and 7,002 from New Zealand. Of the total of 131,553 air crew trained under the plan, the great majority were Canadians - altogether 72,835 Canadian air crew were trained and it is believed that Canada had the highest per capita number of air crew of any nation fighting in the war.

The first Canadian flyers to reach the other side were members of Auxiliary Squadrons. These were soon followed by a steady flow of pilots, navigators, air gunners, radar operators and the all-important ground crew. At the outbreak of war there were 2,948 officers and men in the R.C.A.F. During the war a total of 249,624 Canadians served in the Royal Canadian Air Force in addition to another 4,000 who served with the Royal Air Force. They fought and flew on every front.

The Record in Figures

Canadians came to play their part - to offer their lives, from the farms, the woods, the mines, the city streets, the workshops and the schools. Here is a summary of their numbers and of the losses suffered.

Served During the War

	Men	Women	Total
Navy	99,479	7,043	106,522
Army	*709,007	21,618	730,625
Air Force	232,594	17,030	249,624
Totals	1,041,080	45,619	1,086,771

* Includes 3,633 women members of the Royal Canadian Army Medical Corps.

Casualties

	Killed	Wounded	Total
Navy	1,981	319	2,300
Army	22,964	51,410	74,374
Air Force	17,047	1,416	18,463
Totals	41,992	53,145	95,137

A summary of all awards from the commencement of the War in September 1939 to March 31, 1947, follows:-

	Navy	Army	Air Force	Total
British Awards	1,677	11,932	8,735	22,344
Foreign Awards	54	1,475	213	1,742
Totals	1,731	13,407	8,948	24,086

Supplies

Canada made notable contributions to the war in the supply of munitions, food and financial assistance to the allied cause. Canada produced finished munitions of war to a total of about $10 billions. Although 25 per cent of our farmers joined the armed forces or worked in munitions, the farmers of Canada produced more than 40 per cent more food than in 1939, and, by making our surpluses available to Britain and other countries, prevented starvation succeeding where the enemy had failed.

The total cost of the war to Canada, and its immediate aftermath, to March 31, 1947, is estimated at $20.25 billions. Of this $6.43 billions was spent in mutual aid or other financial assistance to our allies.

At the peak of war production 1,166,000 men and women worked directly in the production of munitions and, with the 1,086,771 in the armed forces, made a total of more than two and a quarter million Canadians who served either in the fighting forces or in the direct production of munitions.

Demobilization

These figures give the measure of the problem of demobilization, rehabilitation, and reconversion. At the peak, which may be taken to be V-E Day, May 8, 1945, there were 349,159 Canadians in England and Europe, including R.C.N. who moved under their own steam. Before they had all been brought home, there were 37,016 wives and 14,630 children, making a total repatriation job for about 400,000 persons. In addition to this total some 10,000 dependents, wives and children had been brought to Canada prior to V-E Day. Repatriation was proceeded with more expeditiously, more smoothly and with less discomfort than anyone could have hoped for and is now complete. At present, there are some 400 members of the armed forces in the United Kingdom and Europe, doing work in connection with graves and records, including our military mission to Berlin and liaison staff in the United Kingdom. That work will have to continue for some time. There are some 1,000 dependents who have long ago been offered transportation which for one reason or another they have so far been unable to take advantage of but who still want to come to Canada.

The repatriation and demobilization of the armed forces ranked first in priority and the way this was organized and pressed through to completion by both my immediate predecessors earned the gratitude of the hundreds of thousands concerned and of their families, indeed of all Canadians.

From time to time tributes have been paid to the ministers and deputies, to the generals and privates, to the workers and the farmers who did their utmost in our war effort. Canada's national effort in the war was a great national partnership.

We have tried to ensure for our sailors, soldiers, and airmen that they should not be any worse off because they had served. Consequently Parliament authorized the introduction

of what is regarded everywhere as the most comprehensive and generous plan of rehabilitation in effect in any country. That work and the work of hospitalization and treatment will go on.

War Stores

The liquidation of surplus war stores proceeded alongside the demobilization of men. At the close of the war in September 1945, we had in Canada more than a billion and a half dollars worth of military equipment and munitions. At one time or another there had been some 6,000 different military establishments, all of which had to be examined to decide which should be kept and which should be disposed of.

We have kept the munitions necessary to equip the Canadian active and reserve forces on a scale never before known. We have also quantities of stores for mobilization reserves. But more than a billion dollars worth was declared surplus, and the operation of putting all this material in condition for distribution, storage or disposal made the Canadian armed forces and War Assets Corporation the greatest warehousing and merchandising concerns in the history of the country.

Civilian Personnel

When men were demobilized from the armed forces, a number of civilians had to be taken on to carry through the work of demobilization and liquidation, with the result that in December 1946 the civilian personnel with a total of 33,000 increased again almost to the wartime peak. As the work of warehousing and disposal was being pressed forward, we were able to reduce the number of civilian personnel and at March 31, 1947, the figure was 20,131, or a reduction of 13,131, representing 37 per cent in four months.

Further reductions will result from time to time and every possible care will be taken to see that these reductions are effected with the least possible hardship to individuals. The small amount of disturbance or complaint in consequence of reductions already made reflects the capacity of our national economy to absorb these people and also shows the good sense of the Canadian people in recognizing that there is no justification for keeping personnel on strength any longer than they are needed.

Civilians in the department total 19,783. Of these 9,249 are civil servants, or do work similar to that done by civil servants; the remainder are prevailing rate employees

engaged in the dockyards at Halifax and Esquimalt, in the construction or conversion of married quarters, in the handling of stores, in various duties, like watchmen, caretakers, firefighters and so on. Our plan is to have as much of this type of work done by civilians as possible, so as to have as many as we can of our armed forces engaged on planning, training and operations.

Defence Needs

This brings me to a consideration of the defence needs of Canada, the organization of our defence forces and the progress made to date.

Taking up first the question of the defence needs of Canada, Canada's defence forces may be required:

(1) to defend Canada against aggression;

(2) to assist the civil power in maintaining law and order within the country;

(3) to carry out any undertakings which by our own voluntary act we may assume in co-operation with friendly nations or under any effective plan of collective action under the United Nations.

Obviously our needs must be considered in the light of circumstances as they change from time to time. The factors bearing on this are numerous. Among them, the following are particularly important:

(1) the geographical positions of Canada;

(2) the capacity of any possible aggressor to make an attack;

(3) the disposition of friendly nations;

(4) what may be called "the international climate".

Developments in warlike materials, particularly new weapons, have an important bearing on the whole position. As the war neared its end, four new weapons had been introduced or were in process of development. These were the atomic bomb, jet-propelled planes, long range rockets and higher speed submarines.

Sufficient quantities of any one of three of these four new weapons would probably have been sufficient to win

the war for the side which had them first. These new weapons, and the chemical and bacteriological agents now known, are so much more devastating than anything previously used that of themselves they may make major changes in the nature of war, should war come again to scourge the earth.

These new powerful weapons reinforce the powerful appeal of those who work to make war impossible. What we have seen of destruction and devastation in the First and Second Great Wars would be small in character or extent compared with the appalling destructiveness of any further large-scale war. For this reason our first line of defence and the object of all our policy must be to work with other nations to prevent war.

This is just as true today in Canada as it is in every other country. Distance and space still combine to give us great natural advantages for which we cannot be too grateful, but distance and space have been drastically reduced and are still shrinking; and the shaping of world events and the changing centres of power have put Canada in a more important strategical position than she has ever been in before.

Let us set down here that we believe that it is possible for nations to live in peace - perhaps the fate of humanity depends on this belief becoming an eternal fact. We also believe that in the United Nations there is the beginning of an organization which may be developed progressively into a great instrument for peaceful co-operation. But progress in peace depends on the way in which powers, and particularly the great powers, work with each other. While the proceedings of the Assembly of the United Nations in December 1946 gave some ground for encouragement, it is still too early for this or any nation to rest on its arms with the assurance that there will be no aggression.

As the first aim of our foreign policy is peace, so the first aim of our defence policy is defence against aggression.

Defence Expenditures

Having set out what I take to be the defence needs of Canada, it is quite evident that the need for defence forces at any given time must be considered with regard to the proportion of the national budget which we are prepared to spend for that purpose. The business of government involves the balancing of means and ends. No government department would be worth its salt if it was ever satisfied with the functions it was exercising. No defence force will ever be completely satisfied.

Leaving budgetary considerations aside, it may be doubted if more than the sum sought of $240,000,000 could be wisely spent in Canada on defence during the current fiscal year. While much progress has been made no one appreciates more than myself that there is still a lot of work to be done in reorganization before we can provide a proper organizational and administrative basis for the defence forces that we may have in the future.

This sum of $240,000,000 represents about 12 per cent of our national budget. It compares with $35 millions spent in 1938-39 or the low figure of $14 millions for 1932-33. For the year ending March 31, 1947 the appropriations voted for the three departments totalled $486,849,141 and the expenditures for the year totalled $383,325,686. The amount underspent is partly accounted for by the very much more rapid rate at which our forces were repatriated and demobilized than anticipated. The estimates for 1946-47 were prepared on the assumption that the strength of the three services would total throughout the year 98,360, whereas halfway through the year, by October 1st, the actual strength had been reduced by demobilization to 55,132. Another reason contributing to the difference between appropriations and expenditures was the postponement of defence purchasing and construction in favour of civilian purchasing and construction.

The work of repatriation and demobilization is to all intents and purposes complete. The work of overhauling and liquidating stores is rather more than 75 per cent complete. We still have, however, large numbers of civilians and service personnel engaged in this work and some of them will be engaged on this for a year or more longer.

Reconversion

In addition, we have a very large number of civilian and service personnel engaged in making necessary conversions in camps and air stations so as to fit in with the post-war plan.

Married Quarters

The biggest construction job being undertaken is to provide married quarters for married personnel. This is the most urgent single need in all three services. We have personnel at work to convert into married quarters every available convertible hutment. Our target is to create more than a thousand new dwelling units in Canada this year; but whether or not it can be done depends on the availability of

materials and labour. For officers and men with active service we have removed the limitations on what used to be called the married establishment so that anyone in the services who saw active service and is married is entitled to the relevent allowances. So also are officers of 25 years of age and men of 23 after they have completed their initial training. Because of a large proportion of the officers and men in the armed forces saw service overseas, many of them from the start of the war to the close, and there was no restriction on marriage in their case, an unusually large proportion, probably 65 per cent, are married.

To illustrate the kind of life led in the new army let us look at Shilo Camp in Manitoba which was among the establishments I was able to visit during the Easter recess of Parliament. In June the military hospital provided assistance at the birth of four children. Under the Regimental Institute committees of officers and men and their wives run on a co-operative basis, modern well-equipped butcher and grocery shops, a garage, a hairdresser's, a shoemakers', wet and dry canteens, a moving picture theatre, swimming pool, all kinds of recreations, concerts and dances, as well as a nursery school. In addition to the usual facilities, the Army provides a library and a two-room elementary school where sixty children are taught by Army-hired instructors. This and similar arrangements elsewhere for the education of the children of our men in the armed forces in isolated communities are being geared into the provincial school system.

Educational opportunities are being provided for officers and men in addition to the camps and trades schools. This all goes to show the changed nature of Canada's post-war armed forces. We aim to create conditions which will attract the best of our young men and enable them to live useful lives as respected citizens of the community.

Defence Priorities

As in other countries, this is still a year of re-organization. Without excluding other objects of activity, I might mention particularly five matters which have a very high priority in all our activities today:

(1) Organization
(2) Training of officers
(3) Reserve training
(4) Research
(5) Industrial organization.

Since my appointment in December I have taken advantage of every possible opportunity to visit units of the Navy, Army and Air Force in many parts of Canada. The total strength of the active forces today is 32,610. They represent a fine body of fit and highly qualified Canadians, well worthy of continuing the record made for them in the First Great War and which so many of them helped to make in the Second Great War.

Co-operation

I have taken advantage of every possible opportunity to meet representatives of Reserve Associations, and co-operating organizations like the Navy League of Canada and the Air Cadet League, as well as representatives of industry and experts from other countries. All these have extended the most helpful co-operation.

In this new world of supersonic talk and saucers flying in formation, it is important that there should be a wide measure of informed and interested support of adequate defence measures by people who have a sense of responsibility and who are willing to accept responsibility. We can never express too warmly the appreciation this country owes to the officers, N.C.Os. and men and their civilian friends who by their voluntary support, maintained our reserve forces through the difficult period of the years between the wars. We should be most grateful to them and to their successors who are carrying on now and to all those who have been of such great assistance in the work of national importance.

Defence Objects

In closing this statement, I enumerate the long-term objects of the department and services:

(1) Progressively closer co-ordination of the armed services and unification of the Department so as to form a single defence force in which the three armed services work together as a team.

(2) Joint intelligence and planning groups to review defence appreciations and plans.

(3) Clothing, food, quarters, pay, pensions and working conditions suitable for young Canadians of high physical and education standards.

(4) Means to provide the active and reserve forces of the three services with adequate numbers of highly qualified officers.

(5) Development of reserve forces of an age and with educational and physical standards and training approximating those of the active forces and who will in time be capable of entering speedily on active service at sea, on land or in the air.

(6) Provision for reserve forces of the most modern training methods, administration and training officers, and adequate equipment.

(7) Maintaining adequate reserves of equipment and weapons.

(8) Close integration of the armed forces, the defence purchasing agency, government arsenals and civilian industry, looking towards standardization and industrial organization to permit of the speedy and complete utilization of our industrial resources.

(9) Co-operation between the armed forces, the Defence Research Board and private industry regarding defence research so that we keep up to date with regard to the design and planning of weapons.

(10) Support for Canadian Arsenals Limited and a limited number of Canadian industries to maintain and increase skills in the design and manufacture of munitions and aircraft.

(11) Organization of government departments and civilian agencies so as to enable us to put a plan for civil defence into immediate effect.

(12) Government leadership to obtain civilian support of the armed forces.

(13) Armed forces to form an integral part of the life of the community.

(14) Co-operation with the countries of the British Commonwealth, the United States and other like-minded countries in working out common standards, planning and training.

These objectives will not be achieved at once but we are working towards them. I hope we shall have the support of all parties and members of parliament, of members of the active and reserve armed forces, of industry, indeed of the whole community of Canada. The measures to be taken for the defence of our country are matters of individual interest as well as national responsibility.

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PART II

DEFENCE ORGANIZATION

In the following part of this Paper, matters mentioned in the foregoing statement of the Minister of National Defence are further developed.

Between the Wars

Towards the end of the First Great War the mood of war weariness carried the note "this mustn't happen again". Such planning as there was of post-war defence forces was hardly put on paper when the depression immediately following the war caused large cuts in defence estimates. In 1932-33 defence expenditure fell to 14.1 millions. At that time the R.C.A.F., which had been struggling to live up to the fine record won during the war by Canadian flyers, was reduced to a total personnel of 694 officers and men.

The story is told in defence expenditures during these years.

1919-20	335,525,512	1934-35	22,286,732
1920-21	31,052,562	1935-36	27,368,163
1921-22	24,164,263	1936-37	26,669,941
1922-23	18,577,504	1937-38	32,760,306
1923-24	14,183,045	1938-39	34,432,839
1924-25	13,320,037	1939-40	125,679,888
1925-26	14,229,038	1940-41	647,922,940
1926-27	14,975,234	1941-42	1,011,451,064
1927-28	17,661,015	1942-43	1,865,622,615
1928-29	19,786,342	1943-44	2,629,094,792
1929-30	21,979,245	1944-45	2,938,377,688
1930-31	23,730,388	1945-46	1,715,731,491
1931-32	18,361,670	1946-47	383,325,686
1932-33	14,123,742		(not final)
1933-34	19,563,192		

Organization during the War

Until 1939 matters relating to defence were dealt with in one department and were the business of a single minister. In 1940 two additional ministers were appointed and two additional

departments were created to deal with the Navy and the Air Force. To effect co-ordination, the Defence Council was created, with the Minister of National Defence as chairman and the other two ministers, the three Chiefs of Staff and the three Deputy Ministers as members, the Defence Secretary being secretary. The Defence Council met usually once a week. In addition there was the Chiefs of Staff Committee and numerous inter-service committees.

In Canada's war effort the roles of the Navy, Army and Air Force differed from each other fundamentally. Although recruited from every part of the country, the Navy operated in two oceans, principally in the North Atlantic where it carried on a large part of the dangerous and essential work of convoy. The Royal Canadian Navy worked in close co-operation with both the British and United States Navies. Because of the nature of escort work with ships of every allied flag represented, it cannot be said that the Canadian Navy, engaged in the work of convoy, acted as an operational unit, although the Canadian Commander-in-Chief, North West Atlantic, was responsible for co-ordinating all convoy escort in this vital area.

In Canada the R.C.A.F. was organized in five commands largely for administrative and training rather than operational purposes. A major task of the R.C.A.F. was to provide training facilities under the British Commonwealth Air Training plan for men from the United Kingdom, Australia and New Zealand, as well as Canada. Once qualified, the new air fighters were rushed overseas and to save time were largely fitted into existing R.A.F. training and fighting formations. Canadians sometimes were with Canadian squadrons or a Canadian bomber group, but more often were with R.A.F. squadrons. Overseas, the R.C.A.F. did not work as an operational unit.

In the Army, however, the situation was different. The two first divisions overseas were followed by three other divisions and by numerous ancillary units and troops of every kind. Canadian soldiers operated as an army in England, as a corps in Italy and as the First Canadian Army in western Europe, other allied troops forming part of a Canadian formation.

In Canada the Army was dealt with for training and administrative purposes through the eleven military districts. With the formation of three additional divisions in Canada, Atlantic and Pacific Commands for possible operational purposes were superimposed on the district organizations.

Planning for Post-War Organization

Germany's surrender on May 8, 1945 started the process of repatriation and demobilization. Before this, preparations were well under way for the organization of the Pacific forces, 150,808 men and women of the Navy, Army and Air Force having volunteered by July 1945. Further organization of the Pacific forces was stopped on September 2, 1945 following the surrender of Japan.

Simultaneously with the work of repatriating and demobilizing the three-quarters of a million men and women who were in the armed forces at V-E Day, the work was commenced of putting the organization of the Defence Department and the services on a post-war basis in accordance with plans which had been in preparation for some time.

In the Army, as a transitional measure, five commands were superimposed on the existing districts with the intention that the districts would disappear when the requisite legislation was enacted. In the Air Force, the number of commands was reduced to four. Steps were taken to put the pay and allowances of officers and men in all three services on an identical basis. The Militia Pension Act relative to all three services was substantially amended so as to put the pensions of officers and men in the services on much the same basis as that of civil servants under the Superannuation Act. A number of inter-service committees were set up to co-ordinate the three services.

Minister of National Defence

In order to bring about the maximum possible degree of co-ordination and to eliminate duplication of functions in the Navy, Army and Air Force, it was decided to have one Minister of National Defence responsible for all three services.

Under the Department of National Defence Act the Minister is charged with responsibility for all matters relating to defence. Under his authority, military command is exercised by those having a commission from the King.

The objects of unification included:

(1) The adoption of a unified defence program to meet agreed strategic needs;

(2) A single defence budget under which funds and resources would be allocated in accordance with the program;

(3) The elimination of duplicatory and even competing services;

(4) Consistent and equitable personnel policies;

(5) Greater emphasis on defence research and closer co-ordination with other government departments and with industry.

In the United Kingdom and Australia, the same need of co-ordinating the three services was felt as in Canada. In the United Kingdom, the means so far adopted has been to appoint a fourth Minister with over-riding and co-ordinating authority (see U.K. White Paper, Command 6923, presented to Parliament in October 1946). In Australia, the wartime arrangement of a Minister for Defence controlling co-ordination of the defence services and general defence policy is being retained. In both countries the three services and corresponding departments are left under their separate Ministers.

In the United States the National Security Act of 1947 was enacted on July 25, 1947, to provide for a Secretary of National Defence with Departments of the Army, Navy and Air Force under three secretaries not having cabinet rank (see communication to Congress from the President of February 26, 1947).

In Canada we have endeavoured to meet the necessity for co-ordination by the appointment of a single minister and the creation of a single department.

On December 12, 1946, Honourable Brooke Claxton was appointed as a single Minister of National Defence. At that time Honourable Colin Gibson, who had been Minister of National Defence for Air, was appointed Secretary of State, and Honourable D. C. Abbott, who had been Minister of National Defence and Minister of National Defence for Naval Services, was appointed Minister of Finance.

Defence Council

The Defence Council's wartime function of co-ordinating the work of the three departments is no longer necessary with the creation of a single department. The Defence

Council was reconstituted by P.C. 887 on March 13, 1947 and consists of the Minister who is chairman, the Parliamentary Assistant, the Deputy Minister, the Associate Deputy Ministers, the three Chiefs of Staff and the Chairman of the Defence Research Board. The chairman of the Personnel Members Committee, the chairman of the Principal Supply Officers Committee or other officers attend as required; the Defence Secretary acts as its secretary. The function of this committee is to advise the Minister with regard to administrative matters. It is the place where administrative matters of importance affecting the department as a whole or of inter-service concern are raised and discussed as a preliminary to their being disposed of by the Minister or under his authority.

Defence Committee of the Cabinet

During the war, in Canada as in the United Kingdom, Australia and other countries, the need for quick action, close co-ordination and complete security produced changes in cabinet organization. In the United Kingdom the War Cabinet replaced the ordinary cabinet. In Canada the War Committee of the Cabinet made decisions on the matters with which it dealt, but it continued to operate alongside and within the framework of the cabinet as a whole, which continued to exercise its functions throughout the war.

The War Committee of the Cabinet was first appointed on December 5, 1939 and consisted then of six members including the Prime Minister, the government leader in the Senate, the Ministers of Justice, Finance, National Defence and Mines and Resources. When it last met in the spring of 1945 it consisted of the Prime Minister, and the Ministers of National Defence, National Defence for Air, National Defence for Naval Services, Munitions and Supply, Justice, Mines and Resources, Finance and Transport.

This committee was succeeded in October, 1945 by the Defence Committee which now consists of the Prime Minister, who acts as chairman, the Minister of National Defence (vice-chairman), the Secretary of State for External Affairs, the Minister of Finance and the Minister of Fisheries. The Defence Committee is attended by the three Chiefs of Staff and the Chairman of the Defence Research Board. Other cabinet ministers, officials or officers attend as required. The terms of reference of the Defence Committee of the Cabinet are "to consider defence questions and to report to the Cabinet upon major matters of policy relating to the maintenance and employment of the three services". The Defence Committee also deals

with matters referred to it by the Cabinet or Treasury Board or business which may be put before it by the Minister or the Chiefs of Staff Committee. On questions of major policy it makes a report to the Cabinet for its action. On less important matters, it gives directions which are carried out by the authority of the Minister. While its main function is to deal with matters of defence planning, it may deal with matters of defence administration which involve major questions of policy or concern other departments.

It may be noted that the Defence Committee of the Cabinet of the United Kingdom was set up in February, 1947 and consists of the Prime Minister who acts as chairman, the Minister of Defence, who replaces the Prime Minister as chairman, the Foreign Secretary, the three service ministers, the Minister of Supply, the Minister of Labour and the Lord President of the Council who has extensive functions with regard to research.

Civil Administration

The administration of the Department of National Defence is under the direction of the Deputy Minister as its permanent head responsible to the Minister. There are two associate deputy ministers; one deals particularly with finance and supply, the other has to do with personnel and pay questions. Under them matters are further sub-divided with three assistant deputy ministers respectively responsible for civil administration of properties, stores and equipment, and personnel.

Instead of three departments and three sets of civilians providing certain services for the Navy, Army and Air Force, the aim is now to have a single civilian service. As far as possible, clerical and similar functions at headquarters at Ottawa and elsewhere are performed by civilians so as to:

(1) achieve greater economy;

(2) perform common functions for all three services for example, security guards at headquarters; and

(3) permit the highest possible proportion of the men in our armed forces to be actually engaged on military work.

Single Defence Headquarters

As a first step in amalgamating the three departments and co-ordinating the three services, a single National

Defence Headquarters has been established. The Navy, Army and Air Force have been organized so that all their activities are channelled in three main divisions.

(1) planning, intelligence, training and operations, corresponding to the General Staff or "G" branch of the Army;

(2) personnel and pay, corresponding to the Adjutant-General's or "A" branch in the Army; and

(3) supply and equipment corresponding to the branches of the Quartermaster-General and Master General of the Ordnance in the Army, which have been combined.

The officers and staffs of the Navy, Army and Air Force dealing with these three sets of matters are headed up in three inter-service committees:

The Chiefs of Staff Committee,
The Personnel Members Committee, and
The Principal Supply Officers Committee.

This arrangement of functions extends to physical location. National Defence Headquarters at Ottawa is now contained in a single group of three buildings all on Cartier Square. The first of these, the old Naval Building, (now "A" building) contains the Minister, Deputy Ministers, Chiefs of Staff, and all the personnel directly related to policy-making, planning, intelligence, training and operations, as well as the Chairman of the Defence Research Board.

In the old Air Force Building, (now "B" building) on Lisgar Street are the people dealing with personnel and pay matters.

In the old Army annex on Cartier Square, (now "C" building) are the personnel dealing with supply and equipment matters for all three services.

In this way the officers and departmental officials having to do with the same matters in each of the services now work alongside each other in the same buildings. The three buildings are adjacent and connected by passageways.

Chiefs of Staff Committee

Planning and training, as well as the overall su-

pervision of each service, is carried out by the Chief of Staff of each service and by the Chairman of the Defence Research Board. These four constitute the Chiefs of Staff Committee, which meets regularly to discuss matters of common interest and major importance. The Under Secretary of State for External Affairs and the Secretary to the Cabinet attend when matters of general interest are under consideration. Periodically, the Chiefs of Staff Committee gives the Defence Committee and Minister a joint report appreciating the military situation.

In the United Kingdom, the United States and Australia, there are similar Chiefs of Staff Committees, though in these countries the official in charge of research is not a member of the Chiefs of Staff Committee as he is in Canada.

Personnel Members Committee

Corresponding to the Chiefs of Staff Committee as regards matters of personnel, medical services, pay, pensions and the like, is the Personnel Members Committee, consisting of the Member for Personnel for the Navy, the Adjutant-General of the Army, the Air Member for Personnel of the Air Force and a representative of Defence Research. Insofar as it does not interfere with the efficiency of the service, the aim is to ensure that personnel in the Navy, Army and Air Force are governed by the same regulations, receive the same pay, pensions, allowances and rations and wear the same clothing except for the distinctive uniform of their service.

Principal Supply Officers' Committee

The Principal Supply Officers' Committee was recently created to complete the pattern of top level joint service committees. This committee deals with matters of supply and equipment in the same way as the Personnel Members Committee deals with personnel and pay.

In both the Personnel Members Committee and the Principal Supply Officers' Committee the chairmanship rotates among the services. The appropriate associate deputy minister attends meetings.

The Problem of Combined Functions

In order to avoid duplication and ensure the greatest possible amount of co-ordination of the three services, an Inter-service Combined Functions Committee was set up some time ago and more than thirty different activities of the armed services

have been subjected to an intense examination.

In the result, fourteen of these have been amalgamated so that where there was a separate group of people engaged in doing the same thing in each of the three services, what is now necessary is done by one service for all three.

Where it is desirable to have a single agency perform an activity which is common to all services, difficult administrative problems arise which have not yet been satisfactorily solved in any country. These problems include such questions as:

> Will the activity be carried on by the Navy, Army or Air Force for the other two services and if so by which; or
>
> Will it be carried on by a central or "neutral" service?
>
> In the latter event, will it report to one of the inter-service committees such as the Principal Supply Officers' Committee? If not, to whom?

This kind of problem and the need for the closest possible co-ordination of the services has led to the suggestion that there should be a single Chief of Staff to direct the operations of all the defence forces in the same way that allied commanders in the various major theatres of war had charge of all operations. Having a single Chief of Staff might seem to solve the problem of responsibility for combined or common functions, but the advantage of having a single Chief of Staff for planning purposes would be largely lost if he became directly responsible for a large mass of administration. But differences between peacetime and wartime conditions taken together with differences in the roles of the Chief of Staff and the Commander in the field have so far led every country in its post-war organization to have separate chiefs for each service. The problem of combined or common functions might be met if the Navy, Army and Air Force were amalgamated into a single service. Combining the services has the obvious appeal of mathematical simplicity, but while it might solve some problems, it would create many new ones, besides destroying much that is valuable in the way of tradition and long-established administrative practices. It is noteworthy that complete amalgamation has not been adopted in any country.

It is believed that in Canada, however, we have already made greater progress in co-ordination than elsewhere.

Already, largely in the last six months, the following branches or functions have been amalgamated or combined under a single service head:

Dental services
Hollerith machine record (Personnel)
Printing and stationery
Mechanical transport
Blueprinting
Identification bureaus
Libraries (Ottawa only)
Public relations
Firefighting
Provost
Photostat
Communications (partial)
Food and fuel (partial)
Stores and equipment (partial)

As examples of additional inter-service activities carried on in combination, the following may be mentioned:

School of cooking
Fire protection service
Ammunition storage facilities
Film bureaus

In addition to the subjects which have been dealt with by amalgamation, some ten other subjects have been dealt with by consolidation so that there is no longer any duplication. These are the following:

Photography
Film storage
Survey - maps and charts
Communications (partial)
Training
Libraries (partial)
Water transport
Properties, building construction and maintenance
Chaplain services
Recruiting

So far it has not been considered desirable to amalgamate these services under a single head. In some cases it is desirable to have a separate branch in each service so that each will always have the organization and the administrative experience to expand to fill an essential need of each separate service in the event of emergency.

Regarding the other branches, it has been decided that a change was not desirable for military reasons or that no economy would be effected by making a change. Branches falling within these classes were:

Area unit commander
Hollerith machine records (equipment)
Intelligence
Design and development of stores and equipment
Armament and ammunition
Pay

The whole matter will be subjected to continuous review.

In connection with medical services, duplication of effort has largely been eliminated. For example, the Navy at Esquimalt and Halifax furnishes medical services and hospitalization to all three services. Medical services are supplied for all personnel by the Army at Vancouver, Calgary, Rivers, Shilo, Winnipeg, Borden, Toronto, London, Kingston, Quebec, and Valcartier and by the Air Force at Edmonton, Trenton and Rockcliffe. There is one central medical stores for the three services. The armed forces have turned over to Veterans Affairs 22 hospitals and arrangements are in effect whereby personnel of the armed forces can be hospitalized at Veterans Affairs or civilian hospitals under service, Veterans Affairs or civilian doctors. Arrangements are being extended whereby service doctors work in Veterans Affairs and civilian hospitals so as to pool resources and develop professional skills.

Organization of Commands

In the Navy there are two major commands exercised out of Ottawa, one on the Atlantic Coast and the other on the Pacific Coast. Canadian naval vessels and personnel are evenly divided between the two coasts.

In the Army legislation enacted this year permitted the eleven military districts, dating back to before Confederation, being changed into an organization of five commands with headquarters at Halifax, Montreal, Oakville, Winnipeg and Edmonton, and additional area headquarters located at Fredericton, Quebec, Kingston, London, Regina and Vancouver.

The Air Force is organized into three commands, Central Command with headquarters at Trenton, Western with

headquarters at Edmonton, and Maintenance with headquarters at Ottawa.

In order to effect maximum decentralization, officers commanding commands have been given more authority than before. In locating the commands consideration has been given to the needs of training and, if necessary, operations. Such matters will, of course, be under continuous review.

Training of Officers

The young officers of today will be the leaders, the staff officers, the training cadre in any future war. The last war threw greater emphasis than ever before on the qualifications and training of officers. If there is another war, new weapons and the quickened pace of events will call for even greater qualities of imagination and adaptability as well as knowledge of military science in addition to capacity for leadership. We regard the training of officers as of primary importance. The role of the officers in modern war can only be properly discharged if they have education and standing in the community comparable to that of any of the professions as well as high qualities of character and physique.

The Royal Military College was changed from a cadet college to a staff college in 1940. At that time the need was for a large number of officers trained to meet the urgent demands of war. It was not possible to devote three years to that process, and totally different methods and a totally different curriculum were applied. Special cadet colleges were established at Brockville, Ontario, at Gordon Head, B.C., and at St. Jerome, P.Q. R.M.C. became a centre for courses for company officers, senior and junior staff officers and civil affairs administration.

Since the end of the war we have been looking into the question whether Royal Military College should be reopened and, if so, upon what basis. A committee was set up under the chairmanship of Brigadier Lett and a report was made. The present plan is that beginning in September, 1947, Royal Roads will operate as a joint cadet college for the Royal Canadian Navy and Royal Canadian Air Force with a two-year course. In September 1948, Royal Roads may be extended to include army cadets as well and R.M.C. will be reopened as a cadet college on a tri-service basis with a four-year course.

In this way officer cadets of the three services will be trained together and achieve much the same educational standards which will be the highest possible. Senior matriculation or the equivalent will be required for entrance, and the curriculum

will be designed so that year by year the course will be equivalent to that of the Canadian universities.

The second source of officers will be the universities. The Canadian Officers' Training Corps, the University Naval Training Divisions, and the Air Force University Summer Training Scheme will during their four year courses at the Universities take additional academic work during the college year and during each of their summer vacations do about sixteen weeks of practical work at good rates of pay. Twenty-two universities in Canada have co-operated in making arrangements under which we will in this way develop a large group of highly qualified, well educated officers who at the end of their university courses will have had additional military academic subjects and the equivalent of a year's practical work in their arm of the services. Already there are 2,700 officer candidates at the universities under these plans.

Finally, there is the third means of becoming an officer, through the lower decks or from the ranks. Plans are in preparation whereby other ranks showing the required educational qualifications and capacity for leadership will be given facilities whereby they may be fitted into one of these plans and also given opportunities of securing in the service the required educational standing.

Staff Training

Beginning in 1948 there will be a National Defence College at Kingston where senior officers of the three services and civilian members of other government departments will receive intensive instruction in strategy, liaison and co-ordination of defence operations at the higher level. Instruction will include research needs and economic and industrial organization as well as military matters.

The three services will continue to have staff and corps courses at various levels with greater emphasis on combined operations. For example, the Air Staff College at Toronto is regularly attended by Navy and Army officers.

Defence Planning and Defence Strategy

This paper deals primarily with defence needs and defence organization rather than with defence planning and strategy. The subjects of planning and strategy are subject to continuous review so as to determine the proper balance between the services and within the branches of each service so to enable

us to use to best advantage the resources of our country to meet the needs as they may develop in the years ahead.

Intelligence

Intelligence activities common to the three services are being undertaken by the Joint Intelligence Bureau, which reports to the Joint Intelligence Committee, a sub-committee of the Chiefs of Staff Committee.

Strength

The strength of the three services (1) before the war, (2) for which recruits are sought today, and (3) as at present, are set out in the table below:

	1939	Strength required now	Actual Strength
Navy	1,769	7,500	6,821
Army	4,492	18,750	13,985
Air Force	2,948	12,150	11,804
Totals	9,209	38,400	32,610

In addition there are 1990 men in the three services in the interim force or enlisted for the period of hostilities, most of whom will cease to be on strength on or before September 30, 1947. About 6,000 men are needed to bring the three services to the strengths required.

In the three services the force at present envisaged will for the time being be largely concerned with training, planning, staff work, care of materials, training the reserve, etc., rather than in providing immediate operational forces, though small forces of the latter type will be organized and trained.

Estimates

Reference has been made above to the appropriation for 1947-48, totalling approximately $240 millions. For purpose of comparison, this may be broken down as follows:

	In millions
Navy	$ 47
Army	$ 80
Air Force	$ 60

	In Millions
Defence Research	$ 13
Alaska Highway, Northwest Staging Route, etc.	$ 15
Demobilization and reconversion	$ 25
Total	$ 240

This total may be compared to the expenditures made before the war.

Of the sums mentioned $22 millions is specially ear-marked for reserve training in the three services as compared with $4,215,338 in 1938-39. In addition a very considerable proportion of all expenditures on the three services have directly or indirectly to do with training reserve forces.

Nearly $3 millions is specially ear-marked for cadet training as compared with $139,500 in 1938-39, more than twenty times as much.

Pay, Allowances and Pensions

As pointed out above, pay, allowances and pensions of all three services were completely revised in 1946 and put on an identical basis for equivalent ranks. At that time the aim was to give officers and men of the armed forces rates of pay which when taken in conjunction with the provision of quarters, fuel, food, clothing, dental, medical and hospital services, pensions, etc. would put them on a basis where they compared favourably with men in civilian occupations.

The rates of pay and allowances are as follows:

TABLE OF PAY AND ALLOWANCES

MONTHLY RATES

RANK OR RATING			BASIC RATES	AFTER 3 YRS. IN RANK	AFTER 6 YRS. IN RANK	S. A. (NOT PROV. WITH Qs & Rs)	MARRIAGE ALLOWANCE	
NAVY	ARMY	AIRFORCE					NOT IN MARRIED QUARTERS	IN MARRIED QUARTERS
ORDINARY RATING (ON ENTRY)	PRIVATE (ON ENTRY)	AIRCRAFTMAN 2nd CLASS (ON ENTRY)	50.00	.....	.....	45.00	20.00	10.00
ORDINARY RATING	PRIVATE (TRAINED)	AIRCRAFTMAN 1st CLASS	54.00	.....	.....	45.00	20.00	10.00
ABLE RATING	PRIVATE 1st CLASS	LEADING AIRCRAFTMAN	61.00	64.00	67.00	45.00	20.00	10.00
LEADING RATING	CORPORAL	CORPORAL	70.00	73.00	76.00	45.00	20.00	10.00
PETTY OFFICER	SERGEANT	SERGEANT	83.00	88.00	93.00	50.00	20.00	10.00
CHIEF PETTY OFFICER	STAFF SERGEANT	FLIGHT SERGEANT	98.00	103.00	108.00	55.00	20.00	10.00
CHIEF PETTY OFFICER (ARTISAN)	WARRANT OFFICER 2	WARRANT OFFICER 2	113.00	118.00	123.00	55.00	20.00	10.00
CHIEF PETTY OFFICER (TECHNICIAN)	WARRANT OFFICER 1	WARRANT OFFICER 1	128.00	133.00	138.00	60.00	20.00	10.00

RANK OR RATING			BASIC RATES	AFTER 3 YRS. IN RANK	AFTER 6 YRS. IN RANK	S.A. (NOT PRO. WITH Qs & Rs)	MARRIAGE ALLOWANCE	
NAVY	ARMY	AIRFORCE					NOT IN MARRIED QUARTERS	IN MARRIED QUARTERS
MIDSHIPMAN (NAVAL SERVICE ONLY)			75.00	.....	.....	45.00	.....	.....
ACTING SUB-LIEUTENANT	SECOND LIEUTENANT	PILOT OFFICER	135.00	.....	.....	45.00	30.00	20.00
SUB-LIEUTENANT	LIEUTENANT	FLYING OFFICER	160.00	175.00	190.00	60.00	30.00	20.00
WARRANT OFFICER (NAVAL SERVICE ONLY)			175.00	190.00	205.00	60.00	30.00	20.00
OFFICERS IN ALL SERVICES COMMISSIONED FROM WARRANT RANK.			180.00	195.00	210.00	60.00	30.00	20.00
LIEUTENANT	CAPTAIN	FLIGHT LIEUTENANT	190.00	205.00	220.00	60.00	30.00	20.00
LIEUTENANT COMMANDER	MAJOR	SQUADRON LEADER	255.00	270.00	285.00	70.00	30.00	20.00
COMMANDER	LIEUTENANT COLONEL	WING COMMANDER	300.00	325.00	350.00	75.00	30.00	20.00
CAPTAIN	COLONEL	GROUP CAPTAIN	420.00	455.00	490.00	80.00	30.00	20.00
COMMODORE	BRIGADIER	AIR COMMODORE	560.00	.....	.....	80.00	30.00	20.00
REAR ADMIRAL	MAJOR GENERAL	AIR VICE MARSHAL	640.00	.....	.....	80.00	30.00	20.00
VICE ADMIRAL	LIEUTENANT GENERAL	AIR MARSHAL	725.00	.....	.....	80.00	30.00	20.00

TRADE GROUPS — OTHER RANKS

THE RATES PAYABLE FOR EACH TRADE GROUP EXCEED THE BASIC PAY OF RANK BY THE FOLLOWING AMOUNTS :—

TRADE GROUP I — $ 4.00 PER MONTH
" " II 12.00 " "
" " III 20.00 " "
" " IV 28.00 " "

The pension arrangement for the regular forces provided for by Parliament in 1946 and in effect today is the same for both officers and other ranks. If an officer or man is retired or discharged compulsorily for any reason other than his own misconduct, a pension is payable to him if he has served in the regular forces for a minimum of ten years provided that he served on active service in the last war and joins the forces prior to 31st December 1948 or becomes medically unfit. Otherwise he receives only a retiring allowance equal to two-thirds of the pension which would otherwise have been payable unless he has had twenty years' service. The amount of the pension is one-fiftieth of the average annual pay and allowances received by the pensioner during the last six years of his service multiplied by the number of years he has served. Time served on active service, in the civil service and in the Royal Canadian Mounted Police and one-quarter of any time served in the reserve forces may be counted in computing the amount of the pension but not for determining eligibility for pension. Members of the forces are required to contribute annualy 5, 5 1/2 or 6% of their pay and allowances, depending on their rate of pay, as a contribution toward their pension.

On the death of a pensioner or of an officer or man who, if compulsorily retired or discharged would have been entitled to a pension, one-half of the pension paid or payable to him may be paid to his widow for the remainder of her life together with allowances for his dependent children. If an officer or man is retired or discharged or dies without having had sufficient service to entitle him to a pension, he or his widow or dependent children may be paid a gratuity equal to one month's pay and allowances for each year's service. If an officer or man retires voluntarily or dies without leaving a widow or dependent children no pension is payable but all pension contributions are returned to him or his estate.

Reserve Training

After the last war the reserves were in poor condition. For the year ended March 31, 1921, the sum of $1,160,000 was all that was provided for reserve training for the army where the corresponding figure today is $13 millions. There was no equipment, there was very little training, there were few officers, non-commissioned officers or men. Following this war steps were taken to avoid that happening. The importance of the reserve has been shown in two wars and we should now take them for what they are - probably the most important part of the armed forces of Canada. Differentiations between the active and the reserve forces are to be wiped out.

This year we have concentrated on the organization of units, with the appointment of officers and N.C.Os and a nucleus of men. New syllabuses and new methods of training developed during the war are provided, and every unit has full-time administrative and training personnel. This is an experiment being worked out in close co-operation with the reserve units themselves. Units are provided with modern equipment and stores on an adequate scale. In certain parts of the country reserve units feel that the progress made has not been sufficiently rapid. To them the answer may be made that only in the case of a few units have any ceilings on numbers or size proved limiting factors. Progress has been far ahead of what might be expected in less than two years after the war, immeasurably ahead of the last war. Towards the end of the summer we aim to have a campaign to assist active forces and reserve units in attaining the presently authorized strength. The challenge to reserve units is that they should be in a position by then to give useful training to the men who it is hoped and expected will be willing to serve.

The number in the reserve force of the Army at June 15, 1947 was 33,704 men (an additional 1,418 men were in the Canadian Officers Training Corps, which does not form part of the reserve properly so-called). For those on the establishment, training is provided this year for thirty days; and in addition 10,000 are to receive fourteen days' training at summer camps. Provision is also made to give 15,000 tradesmen and specialists fifteen days' additional training at local headquarters. More training is provided for this year than ever before in peacetime.

In the Western Command a civilian committee has been set up for each reserve unit charged with the function of supporting that unit in every way possible. In the great majority of cases these civilian committees are doing useful work in support of the reserve units. We hope that the same procedure will be applied in other commands across Canada.

Arrangements for even more extended training for Naval Reserves and Air Force Auxiliaries are being provided.

To encourage participation in the reserve forces the government passed an Order-in-Council, P.C. 12/728 of July 10, 1947, providing for leave for civil servants to undergo reserve training and it is confidently expected that other employers will make the same provision.

Cadets

With the object of putting the three cadet services on a comparable basis which would enable them to do useful work and which should lead to the association of former cadets with the active and reserve forces, the age limits and conditions of service for the sea cadets, army cadets and air cadets were brought more into line. Generally speaking, the Department pays grants for training in respect of cadets in authorized corps between the ages of 14 and 18. In Britain the age for entry into service cadet forces is fifteen years. Training officers and equipment are supplied, there is free transportation to camp and assistance is provided in furnishing uniforms and bands. The numbers of cadets planned for this year are 10,000 Sea Cadets, 50,000 Army Cadets, and 15,000 Air Cadets, which is approximately the number of senior cadets active in these three services today and far exceeds the number of active senior cadets before the war. Expenditure on cadets, provided for this year of nearly $3 millions, is twenty times as great as in 1938-39.

Defence Research

The Department of National Defence Act (R.S.C. 1927, c. 136) was amended on April 1, 1947 to provide for the establishment of a Defence Research Board as a permanent part of the department. The Board consists of five ex-officio and six appointed members serving under a full-time chairman, Doctor O. M. Solandt. The ex-officio members are the Chiefs of Staff of the three services, the President of the National Research Council and the Deputy Minister of National Defence. The appointed members are Professor C. H. Best of the University of Toronto; Professor Paul Gagnon of Laval University; Colonel R. D. Harkness of the Northern Electric Company; Professor J. H. L. Johnstone of Dalhousie University; Professor Otto Maass of McGill University and Professor G. M. Shrum of the University of British Columbia.

Under the guidance of this board, good progress has been made in setting up a permanent organization for defence research. This organization is already beginning to take its place as an essential part of the defence of Canada. Defence research has been set up in Canada as a fourth service.

The organization under the Defence Research Board will consist of a headquarters staff, advisory committees and research establishments. The ultimate aim of the whole organization will be to make available to the armed forces of Canada the scientific resources of Canada and of other countries. The

headquarters staff will be the main link with the armed forces, getting from them their research requirements and conveying to them the latest results of scientific research. The advisory committees will serve to make available to the armed forces the best scientific advice that is available in government, university and industrial research laboratories. These committees will also help to keep the whole scientific community of the country in touch with the problems of defence to facilitate rapid mobilization in time of need.

In order to avoid any unnecessary duplication of research facilities, the research stations of the Board will deal only with those problems of the armed forces which have little or no civilian interest. In other fields, such as electronics and aeronautics, it will make use of existing research laboratories, especially those of the National Research Council.

In all its work, the Board will give priority to problems in which Canada has some special interests or for which our facilities are specially suited. Experience has already shown that well-directed defence research produces many results that are of value, both direct and indirect, to the civilian economy.

In planning this organization, the government has had in mind the vital need for continuity in research. This new organization is not a temporary addition to our armed forces. It is a fully integrated and permanent part of the defences of the country. It must be staffed and equipped to take a long term view of the scientific requirements of defence, and it must continue in being as long as there is a need for defence forces. Further, to ensure that research receives adequate consideration of the highest level, the Chairman of the Defence Research Board has been given the status of a Chief of Staff, is a member of the Chiefs of Staff Committee and Defence Council and attends meetings of the Defence Committee of the Cabinet.

Industrial Organization

Canada's record of production in the last war amazed the world, but those who were responsible for it would be the first to say that much more could have been done in less time had adequate plans been laid in advance.

Seventy per cent of everything we made during the war went into the pool of allied supplies. What we did was to make more of the things we could make best and exchange these for the things which other nations could make more economically or more quickly than we could. Consequently we did

not make all our own arms. Much of our equipment was of British design while industrial practice and standards were North American. For this reason Canada has a special stake in standardization of arms and equipment.

Industrial organization includes planning for the development of common standards and designs, the organization of industrial development and research, the maintenance of industrial skills, and improvement in the techniques of procurement, purchasing and inspection.

Following our wartime experience, defence purchasing has been put in the hands of the Canadian Commercial Corporation, staffed largely by men who gained unequalled experience in the Department of Munitions and Supply, later Reconstruction and Supply.

Canadian Arsenals Limited, a crown company, will be responsible for the production of certain types of munitions, but in addition will have important functions in connection with development and industrial organization.

Inspection, standardization and industrial organization are various aspects of the same problem of production, and all these are being worked on now on the basis of our war-won experience and in close co-operation with industrial leaders. We are in process of setting up a committee to advise the Minister and the Defence Committee of the Cabinet on matters of industrial organization. It is expected that this committee will include representatives of:

(1) the manufacturers who made munitions during the war;

(2) Canadian Arsenals Limited;

(3) Canadian Commercial Corporation;

(4) the Department of Trade and Commerce;

(5) Principal Supply Officers of the services;

(6) Defence Research.

In this way we shall be able to bring together all the forces which worked so well during the war and which it is necessary to have working together in peace.

There will be the maximum use of stocks of munitions accumulated during the war with a gradual introduction of equipment of the most modern kind. For the first time in peacetime, Canada has very considerable stores of weapons and these will not be disposed of until they can be replaced with new weapons of proven utility.

* * *

PART III

CO-OPERATION WITH OTHER NATIONS

The first aim of Canadian policy is to prevent war. The Canadian Parliament and our representatives at international conferences have repeatedly affirmed our support of the United Nations as a means to this end. Moreover, to an extent not excelled by any nation in proportion to resources and population, Canada has demonstrated our determination to assist in creating the positive conditions for peace.

Canada's co-operative arrangements with other nations must be interpreted against the background of our membership in the United Nations.

These arrangements include that with the United States as stated in the Declaration of our Prime Minister and the President on February 12, 1947. The Prime Minister read the Joint Declaration in the House of Commons. The Declaration follows:

"I wish to make a statement on defence co-operation with the United States. This statement is also being made today by the government of the United States. It is regarding the results of discussions which have taken place in the Permament Joint Board on Defence on the extent to which the wartime co-operation between the armed forces of the two countries should be maintained in this post-war period. In the interests of efficiency and economy, each government has decided that its national defence establishment shall, to the extent authorized by law, continue to collaborate for peacetime joint security purposes. The collaboration will necessarily be limited and will be based on the following principles:

(1) Interchange of selected individuals so as to increase the familiarity of each country's defence establishment with that of the other country.

(2) General co-operation and exchange of observers in connection with exercises and with the development and tests of material of common interest.

(3) Encouragement of common designs and standards in arms, equipment, organization, methods of training and new developments. As certain United Kingdom standards have long been in use in Canada, no radical change is contemplated or practicable and the application of this principle will be gradual.

(4) Mutual and reciprocal availability of military, naval and air facilities in each country; this principle to be applied as may be agreed in specific instances. Reciprocally each country will continue to provide with a minimum of formality, for the transit through its territory and territorial waters of military aircraft and public vessels of the other country.

(5) As an underlying principle all co-operative arrangements will be without impairment of the control of either country over all activities in its territory.

"While in this, as in many other matters of mutual concern, there is an identity of view and interest between the two countries, the decision of each has been taken independently in continuation of the practice developed since the establishment of the permanent joint board on defence in 1940. No treaty, executive agreement or contractual obligation has been entered into. Each country will determine the extent of its practical collaboration in respect of each and all of the foregoing principles. Either country may at any time discontinue collaboration on any or all of them. Neither country will take any action inconsistent with the Charter of the United Nations. The Charter remains the cornerstone of the foreign policy of each.

"An important element in the decision of each government to authorize continued collaboration was the conviction on the part of each that in this way their obligations under the Charter of the United Nations for the maintenance of international peace and security could be fulfilled more effectively. Both governments believe that this decision is a contribution to the stability of the world and to the establishment through the United Nations of an effective system of world wide security. With this in mind each government has sent a copy of this statement to the Secretary General of the United Nations for circulation to all its members.

"In August, 1940, when the creation of the Board was jointly announced by the late President Roosevelt and

by myself as Prime Minister of Canada, it was stated that the Board "shall commence immediate studies relating to sea, land and air problems including personnel and material. It will consider in the broad sense the defence of the north half of the western hemisphere". In discharging this continuing responsibility the Board's work led to the building up of a pattern of close defence co-operation. The principles announced today are in continuance of this co-operation. It has been the task of the governments to assure that the close security relationship between Canada and the United States in North America will in no way impair but on the contrary will strengthen the co-operation of each country within the broader framework of the United Nations."

In addition to reading the Declaration the Prime Minister made the following comments:

"Co-operation between Canada and the United States in matters of defence has become increasingly effective in recent years. Among the first public statements to be made by the head of either government was the speech of the late President Roosevelt at Kingston, Ontario, 1938 when he said, 'The Dominion of Canada is part of the sisterhood of the British Empire. I give to you assurance that the people of the United States will not stand idly by if domination of Canadian soil is threatened by any other empire'. Two days later at Woodbridge, Ontario, as Prime Minister of Canada I replied, 'We, too, have our obligations as a good friendly neighbour, and one of these is to see that, at our own instance, our country is made as immune from attack or possible invasion as we can reasonably be expected to make it, and that, should the occasion ever arise, enemy forces should not be able to pursue their way, either by land, sea or air, to the United States across Canadian territory'.

"It was two years later, in August 1940, that the Permanent Joint Board on Defence was created and it has met regularly ever since to discuss common problems and to make recommendations to the governments which created it. The statement made today emphasizes the desirability of continuing the co-operation between Canada and the United States in matters of defence which has developed through the years.

"As the joint statement points out, the Charter of the United Nations is the cornerstone of the foreign policy of both governments. Certainly, the Canadian Government holds that its obligations to the United Nations are of over-

riding importance. In time, it is to be hoped that there will emerge - apart altogether from reduction and limitation of arms and elimination of weapons of mass destruction - a system of international security which will be adequate to preserve the peace of the world. The ultimate objective is not joint or regional defence, but collective international defence as the guarantee of national security.

"It must be recognized, however, that much progress has still to be made before a system of international security becomes effective. Each nation must therefore consider what steps it should take in the meantime to defend itself against aggression, while bearing constantly in mind that these steps should contribute to the development of general security in accordance with the Charter of the United Nations. I should like to make it entirely clear that, so far as the Canadian government is concerned, and I am sure the United States government also, defence co-operation between Canada and the United States is intended to support and strengthen the United Nations.

"It will be noted that the principles of co-operation announced in the joint statement parallel closely the procedures which have long been applied between the nations of the British Commonwealth. Without formal agreements between governments, we have had working arrangements with the United Kingdom and other Commonwealth countries for the interchange of personnel, the exchange of observers, and so forth. The similar arrangements envisaged between Canada and the United States in no way interfere with or replace our Commonwealth connections in matters of defence training and organization. Given the geographical position of Canada, it is important that measures of co-operation should be undertaken both with the United States and the United Kingdom.

"In conclusion, I should like to comment briefly on problems of northern defence. The subject has naturally engaged the attention of many people both here and abroad and some quite unfounded suggestions have been put forward. There is a persistent rumour, for example, that the United States government has asked for bases in the Canadian north. This is a rumour which I should like to deny emphatically. There has been talk of Maginot lines, of large scale defence projects, all of which is unwarranted and much of it fantastic. What we are trying to do is to view the situation soberly, realistically, and undramatically.

"It is apparent to anyone who has reflected even casually on the technological advances of recent years that new geographic factors have been brought into play. The polar regions assume new importance as the shortest routes between North America and the principal centres of population of the world. In consequence, we must think and learn more about those regions. When we think of the defence of Canada, we must, in addition to looking east and west as in the past, take the north into consideration as well. Our defence forces must, of course, have experience of conditions in these regions, but it is clear that most of the things that should be done are required apart altogether from considerations of defence. We must know more about such fundamental facts as topography and weather. We must improve facilities for flying. We must develop better means of communication. The general economic development of the north will be greatly aided by tests and projects carried out by both civilian and defence services. As the government views it, our primary objective should be to expand our knowledge of the north and of the conditions necessary for life and work there with the object of developing its resources.

"Canada's northern programme is thus primarily a civilian one to which contributions are made by the armed forces. This has been the pattern for many years. Thus the army years ago installed and has continued to maintain communication systems in the Northwest Territories. It is now responsible for administering the Alaska highway, now known as the Northwest Highway System, extending from Dawson Creek to the Alaska boundary. The R.C.A.F. has been responsible for taking aerial photographs to be used in the production of maps and charts. It has also been given the responsibility of administering the airfields of the northwest staging route from Edmonton north which are used for civil aviation. More recently, a small winter experimental establishment was set up at Churchill where various tests on clothing, equipment, transport, and so on, are being conducted which will be of general benefit to all who live in the north. Since the United States, as well as Canada, recognizes the need for greater familiarity with northern conditions, we have arranged for its government to participate in the work of this establishment. It may be that other tests and projects will require to be undertaken on a joint basis, in order to extend with a maximum of economy and effectiveness, our knowledge of the north. Through such extension we will acquire the basic data that are needed to make more accessible the economic resources of this region and which will be more valuable for defence purposes as well."

Liaison

In addition to the Permanent Joint Board on Defence, Canada maintains at London Joint Liaison Officers and at Washington a Joint Staff Mission representing the three services as well as Defence Research.

Pursuant to these arrangements there is an exchange of a limited number of personnel at staff and other courses as well as participation in a number of research, testing and other activities to our mutual advantage.

Purpose of Organization

This completes a summary description of the organization of the defence forces of Canada. It is believed that it is a primary importance to complete this work of organization so as to secure the utmost value for the defence dollar, provide a sound basis on which to carry on the work of the post-war forces and be the foundation for rapid expansion if that should prove necessary.

The object of this organization is to facilitate the planning, equipping, and training of Canada's armed forces to meet any need that may arise.

Defence has become a matter of major national importance. The present paper is put forward as a step towards that informed public opinion which must be the basis of all democratic action.

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